L20 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS 2001:119741 CAPLUS AN DN 135:102738 ΤI Anticatabolism after severe burn: synergism between growth hormone and propranolol ΑU Hart, David W.; Wolf, Steven E.; Lal, Sofia; Obeng, Michael; Wolfe, Robert R.; Herndon, David N. CS Department of Surgery, The University of Texas Medical Branch and Shriners Hospitals for Children, Galveston, TX, USA SO Surg. Forum (2000), 51, 196-197 CODEN: SUFOAX; ISSN: 0071-8041 PB American College of Surgeons DTJournal LΑ English CC 2-5 (Mammalian Hormones) Section cross-reference(s): 1 AΒ The catecholamine-mediated hypermetabolic response to severe burn is assocd. with exaggerated muscle protein catabolism. Recombinant human growth hormone (rhGH) has been shown to improve net muscle protein synthesis in burn patients. Long-term .beta. blockade decreases the elevated resting energy expenditure assocd. with hypermetabolism. study was conducted to test the hypothesis that the addn. of propanolol to growth hormone will synergistically improve muscle protein kinetics after burn. Results indicated that in severely burned pediatric patients, the therapeutic combination of rhGH with antagonism of catecholamines by .beta. blockade attenuates hypermetabolism and reverses muscle protein catabolism. STanticatabolism severe burn synergism growth hormone propranolol IT Development, mammalian postnatal (child; synergism between growth hormone and propranolol in anticatabolism after severe burn in human pediatric patients) IT Energy metabolism, animal Muscle Protein degradation Translation, genetic (synergism between growth hormone and propranolol in anticatabolism after severe burn in human pediatric patients) ΙT Adrenoceptor antagonists (.beta.-; synergism between growth hormone and propranolol in anticatabolism after severe burn in human pediatric patients) IT525-66-6, Propranolol 9002-72-6, Growth hormone RL: BAC (Biological activity or effector, except adverse); THU

(synergism between growth hormone and propranolol in anticatabolism
after severe burn in human pediatric patients)
RE.CNT 2

RE

(1) Breitenstein, E; Burns 1990, V16, P259 MEDLINE

(Therapeutic use); BIOL (Biological study); USES (Uses)

(2) Gore, D; Arch Surg 1991, V126, P38 MEDLINE

copy file.

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ANSWER 3 OF 4 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 3
AN
     94373257 EMBASE
DN
     1994373257
ΤI
    Lipolysis in burned patients is stimulated by the .beta.2-receptor for
     catecholamines.
    Herndon D.N.; Nguyen T.T.; Wolfe R.R.; Maggi S.P.; Biolo G.; Muller M.;
AII
     Barrow R.E.; Forse R.A.; Bessey P.Q.
     Burns Institute, Shriners Hosp. for Crippled Children, 815 Market
     St, Galveston, TX 77550-2725, United States
     Archives of Surgery, (1994) 129/12 (1301-1305).
SO
     ISSN: 0004-0010 CODEN: ARSUAX
CY
     United States
DT
     Journal; Article
FS
            Surgery
     037
            Drug Literature Index
T.A
    English
SL
    English
    Objective: To determine if the cardiovascular effects of excessive
AB
     catecholamines could be selectively blocked in severely burned
    patients without adversely affecting protein or fat kinetics. Design:
     Prospective cohort study. Setting: A large tertiary care referral center
     in Galveston, Tex. Patients: Sixteen patients with greater than 40% body
     surface area burns. Interventions: Patients were randomly
     selected to receive propranolol hydrochloride, a nonselective
     .beta.1- and .beta.2-blocker, or metoprolol tartrate, a selective
     .beta.1-blocker. Main Outcome Measures: Heart rate; rate-pressure product;
    rate of appearance of urea, glucose, and leucine; and leucine oxidation
    were measured before and after selective or nonselective .beta.-
     adrenergic blockade. Results: Propranolol and metoprolol caused
     a significant decrease in heart rate, from a mean (.+-.SD) of 143.+-.15 to
     115.+-.11 and from 147.+-.17 to 120.+-.9 beats per minute, respectively,
     during the 5-day study period. Neither the rate of appearance of urea nor
     the rate of urea production were significantly altered by
    propranolol or metoprolol therapy. Only propranolol
    produced a significant decrease (P<.05) in the rate of appearance of
    glycerol, from a mean (.+-.SD) of 5.54.+-.0.62 to 3.07.+-.0.7 .mu.mol/kg
    per minute. The rate of appearance of leucine, used as an index of total
    body protein catabolism, was not significantly altered by either
     .beta. - blocker. Conclusions: Selective .beta.1-adrenergic blockade did
    not reduce lipolysis; however, a .beta.1- and .beta.2-adrenergic blockade
     significantly reduced lipolysis. Thus, the increased lipolysis,
     characteristic of severely burned patients, is caused by
     stimulation of the .beta.2-adrenergic receptors for catecholamines.
    Medical Descriptors:
     *burn: TH, therapy
     *lipolysis
     amino acid metabolism
     article
     cardiovascular effect
     catecholamine release
     clinical article
     clinical trial
    drug effect
    drug selectivity
    heart rate
    human
     intravenous drug administration
     isotope labeling
    metabolic parameters
    priority journal
    protein degradation
    thermal injury: TH, therapy
    urea cycle
    Drug Descriptors:
     *beta 2 adrenergic receptor
    beta 1 adrenergic receptor
     *beta 1 adrenergic receptor blocking agent: CT, clinical trial
     *beta 1 adrenergic receptor blocking agent: AD, drug administration
```

```
=> s propranolol/cn
             1 PROPRANOLOL/CN
=> d
L1
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN
     525-66-6 REGISTRY
     2-Propanol, 1-[(1-methylethyl)amino]-3-(1-naphthalenyloxy)- (9CI)
                                                                             (CA
CN
     INDEX NAME)
OTHER CA INDEX NAMES:
     2-Propanol, 1-(isopropylamino)-3-(1-naphthyloxy)- (7CI, 8CI)
CN
OTHER NAMES:
     (.+-.)-Propranolol
CN
     .beta.-Propranolol
CN
     1-(1-Naphthyloxy)-3-(isopropylamino)-2-propanol
CN
     1-(Isopropylamino)-3-(1-naphthyloxy)-2-propanol
CN
     AY 64043
CN
CN
     Betalong
CN
     dl-Propranolol
CN
     DL-Propranolol
CN
     Propranolol
CN
     Proprasylyt
CN
     Racemic propranolol
CN
     Reducor
FS
     3D CONCORD
DR
     13013-17-7
MF
     C16 H21 N O2
CI
     COM
LC
     STN Files:
                   ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSNB, DDFU, DIOGENES, DRUGPAT,
       DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
       NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER,
       TOXLIT, ULIDAT, USAN, USPATFULL, VETU
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
             ОН
i-PrNH-CH2-CH-CH2-O
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
            8905 REFERENCES IN FILE CA (1967 TO DATE)
             102 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            8914 REFERENCES IN FILE CAPLUS (1967 TO DATE)
                1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> s timolol/cn
             1 TIMOLOL/CN
L2
=> d
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
L2
RN
     26839-75-8 REGISTRY
     2-Propanol, 1-[(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-
     thiadiazol-3-yl]oxy]-, (2S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
```

```
CN
     1,2,5-Thiadiazole, 2-propanol deriv.
СÑ
     2-Propanol, 1-(tert-butylamino)-3-[(4-morpholino-1,2,5-thiadiazol-3-
     yl)oxy]-, (S)-(-)-(8CI)
CN
     2-Propanol, 1-[(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-
     thiadiazol-3-yl]oxy]-, (S)-
OTHER NAMES:
     (-)-S-Timolol
CN
     (-)-Timolol
CN
     (S) -Timolol
CN
     L-Timolol
     1-Timolol
CN
CN
     Oftensin
CN
     Timolol
FS
     STEREOSEARCH
DR
     131628-37-0, 194288-09-0
MF
     C13 H24 N4 O3 S
CI
     COM
LC
     STN Files:
                  ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMLIST, CIN, CSCHEM,
       DDFU, DIOGENES, DRUGPAT, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB,
       IPA, MEDLINE, MRCK*, NIOSHTIC, PHAR, PHARMASEARCH, PROMT, SPECINFO,
       TOXCENTER, TOXLIT, USPATFULL, VETU
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**, NDSL**, TSCA**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
Absolute stereochemistry. Rotation (-).
                    NHBu-t
              OH
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
            1022 REFERENCES IN FILE CA (1967 TO DATE)
              16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1023 REFERENCES IN FILE CAPLUS (1967 TO DATE)
=> s nadolol/cn
             1 NADOLOL/CN
L3
=>d
L3
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
     42200-33-9 REGISTRY
RN
     2,3-Naphthalenediol, 5-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-
CN
     1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
     Nadolol
CN
     SQ 11725
FS
     3D CONCORD
MF
     C17 H27 N O4
CI
     COM
LC
     STN Files:
                  ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST,
       CIN, DDFU, DIOGENES, DRUGPAT, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT,
       IFIUDB, IPA, MEDLINE, MRCK*, NIOSHTIC, PHAR, PROMT, RTECS*, SPECINFO,
       SYNTHLINE, TOXCENTER, TOXLIT, ULIDAT, USAN, USPATFULL
         (*File contains numerically searchable property data)
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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614 REFERENCES IN FILE CA (1967 TO DATE)
              10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             616 REFERENCES IN FILE CAPLUS (1967 TO DATE)
=> s atenolol/cn
L4
             1 ATENOLOL/CN
=> d
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
L4
RN
     29122-68-7 REGISTRY
CN
     Benzeneacetamide, 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]- (9CI)
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Acetamide, 2-[p-[2-hydroxy-3-(isopropylamino)propoxy]phenyl]- (8CI)
OTHER NAMES:
     (.+-.)-Atenolol
CN
CN
     (RS) -Atenolol
     Atenolol
CN
CN
     DL-Atenolol
CN
     dl-Atenolol
CN
     Duraatenolol
CN
     ICI 66082
CN
     Tenormin
FS
     3D CONCORD
DR
     106020-65-9, 60966-51-0
MF
     C14 H22 N2 O3
CI
     COM
LC
     STN Files:
                  ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGPAT, DRUGU,
       EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS,
       NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, SYNTHLINE,
       TOXCENTER, TOXLIT, USAN, USPATFULL, VETU
         (*File contains numerically searchable property data)
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT 2255 REFERENCES IN FILE CA (1967 TO DATE) 14 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 2262 REFERENCES IN FILE CAPLUS (1967 TO DATE) => s metoprolol/cn 1 METOPROLOL/CN 1.5 => dANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS L_5 51384-51-1 REGISTRY RN 2-Propanol, 1-[4-(2-methoxyethyl)phenoxy]-3-[(1-methylethyl)amino]- (9CI) CN (CA INDEX NAME) OTHER NAMES: CN (.+-.)-Metoprolol CN (RS)-Metoprolol 1-Isopropylamino-3-[4-(2-methoxyethyl)phenoxy]-2-propanol CN CN Beatrolol CN Beloc-Zok CGP 2175 CN dl-Metoprolol CN CNMetoprolol CN Spesicor 3D CONCORD FS 54163-88-1, 37350-58-6 DR MF C15 H25 N O3 CI COM ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, LCSTN Files: BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGPAT, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER, TOXLIT, ULIDAT, USAN, USPATFULL, VETU (*File contains numerically searchable property data) EINECS**, WHO Other Sources: (**Enter CHEMLIST File for up-to-date regulatory information) CH_2-CH_2-OMe OH i-PrNH-CH2-CH-CH2-O **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT** 649 REFERENCES IN FILE CA (1967 TO DATE) 6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 654 REFERENCES IN FILE CAPLUS (1967 TO DATE) => s esmolol/cn 1 ESMOLOL/CN L6 => d L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS RN 81147-92-4 REGISTRY CN Benzenepropanoic acid, 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-, methyl ester (9CI) (CA INDEX NAME) OTHER NAMES:

CN

(.+-.)-Esmolol

CN Esmolol 3D CONCORD FS 103598-03-4, 84057-94-3 DR MF C16 H25 N O4 CI COM ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, LC STN Files: BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CIN, DDFU, DIOGENES, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, HSDB*, IFICDB, IFIUDB, IPA, MEDLINE, MRCK*, PHAR, PROMT, RTECS*, SYNTHLINE, TOXCENTER, TOXLIT, USAN, USPATFULL, VETU (*File contains numerically searchable property data) Other Sources: WHO

$$\begin{array}{c|c} \text{O} & \\ \text{CH}_2\text{-}\text{CH}_2\text{-}\text{C} \\ \text{OMe} \\ \\ \text{i-PrNH-CH}_2\text{-}\text{CH-CH}_2\text{-}\text{O} \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

161 REFERENCES IN FILE CA (1967 TO DATE) 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 162 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> s nipradilol/cn L71 NIPRADILOL/CN

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS

RN 81486-22-8 REGISTRY

CN 2H-1-Benzopyran-3-ol, 3,4-dihydro-8-[2-hydroxy-3-[(1-

methylethyl)amino]propoxy]-, 3-nitrate (9CI) (CA INDEX NAME)

OTHER NAMES:

=> d

CN

CM

ASL 8052-001

Brevibloc

CN Hypadil CN K 351

KT 210 CN

Nipradilol CN

3D CONCORD

MF C15 H22 N2 O6

CI

FS

ADISNEWS, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, STN Files: BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CIN, DDFU, DRUGPAT, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PROMT, RTECS*, SYNTHLINE, TOXCENTER, TOXLIT, USAN, USPATFULL

(*File contains numerically searchable property data) Other Sources:

```
=> s carvedilol/cn
              1 CARVEDILOL/CN
=> d
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
L8
     72956-09-3 REGISTRY
RN
     2-Propanol, 1-(9H-carbazol-4-yloxy)-3-[[2-(2-methoxyphenoxy)ethyl]amino]-
CN
     (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
     (.+-.)-Carvedilol
CN
     BM 14190
CN
     Carvedilol
     Coreg
CN
CN
     DQ 2466
     SKF 105517
CN
     3D CONCORD
FS
     107741-96-8
DR
     C24 H26 N2 O4
MF
CI
     COM
                   ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*,
LC
     STN Files:
       BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CEN,
       CIN, CSCHEM, DDFU, DIOGENES, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES,
       EMBASE, IPA, MEDLINE, MRCK*, PHAR, PHARMASEARCH, PROMT, RTECS*, SYNTHLINE, TOXCENTER, TOXLIT, USAN, USPATFULL
```

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

152 REFERENCES IN FILE CA (1967 TO DATE)

153 REFERENCES IN FILE CAPLUS (1967 TO DATE)

PAGE 1-A

(*File contains numerically searchable property data)

Other Sources:

WHO

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> s acebutolol/cn

503 REFERENCES IN FILE CA (1967 TO DATE)
9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
513 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1 ACEBUTOLOL/CN L9 => d ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS Ь9 37517-30-9 REGISTRY RNButanamide, N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]pheny CN 1]- (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: Butanamide, N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]pheny 1]-, (.+-.)-OTHER NAMES: CN (.+-.)-Acebutolol Acebutolol CN CNdl-Acebutolol CNNeptal 3D CONCORD FS 28197-63-9 DR MF C18 H28 N2 O4 CI ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, LC STN Files: BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGPAT, DRUGU, EMBASE, HSDB*, IFICDB, IFIUDB, IPA, MEDLINE, MRCK*, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER, TOXLIT, USAN, USPATFULL (*File contains numerically searchable property data)

(**Enter CHEMLIST File for up-to-date regulatory information)

Other Sources:

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

EINECS**, WHO

749 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
750 REFERENCES IN FILE CAPLUS (1967 TO DATE)